WEST Search History

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DATE: Tuesday, October 26, 2004

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR	
☐	L25	L24 and bacillus$	10
☐	L24	l22 and (librar$).clm.	22
☐	L23	L22 and (nisin$ or bacteriocin$ or lantibiotic$ or sublancin$ or subtilin$)	0
☐	L22	L21 near3 l20	40
☐	L21	(display$).clm.	232965
☐	L20	(bacteria or bacterial).clm.	25620
☐	L19	L18 near30(bacteriocin$ or lantibiotic$ or sublancin$ or subtilin$)	4
☐	L18	(bacteria or bacterial)near3(display$)	1169
☐	L17	(antimicrobial)near2(peptid$)near5(display$ or librar$)	21
☐	L16	(bacteriocin$)near5(display$ or librar$)	10
		DB=EPAB; PLUR=YES; OP=OR	
☐	L15	WO-200288367-A1.did.	0
		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR	
☐	L14	(lantibiotic$ or nisin$)near20(display$ or librar$)	25
☐	L13	(sublancin$ or subtilin$)near20(display$ or librar$)	9
☐	L12	L11 not l4	7
☐	L11	L10 and (display$ or librar$)	15
☐	L10	(sublancin$ or subtilin$).clm.	37
☐	L9	L8 and (display$ or librar$).clm.	6
☐	L8	(lantibiotic$).clm.	44
☐	L7	L6 and (display$ or librar$)	25
☐	L6	L5 not l4	47
☐	L5	(l1 or l2) and (sublancin$ or subtilin$)	60
☐	L4	L3 and subtilin$	13
☐	L3	L2 and l1	50
☐	L2	hansen	56301
☐	L1	(maryland)near2(univers$)	1159

END OF SEARCH HISTORY

h e b b cg b chh e e f c e bce

09/893,499

(FILE 'HOME' ENTERED AT 10:15:36 ON 26 OCT 2004)

FILE 'STNGUIDE' ENTERED AT 10:15:41 ON 26 OCT 2004

FILE 'REGISTRY' ENTERED AT 10:16:05 ON 26 OCT 2004
L1 7548 S SKFD/SQSP

FILE 'CAPLUS' ENTERED AT 10:16:21 ON 26 OCT 2004
L2 3718 S L1
L3 425 S L2 AND (DISPLAY OR LIBRAR?)
L4 8 S L3 AND BACILLUS
L5 2 S L2 AND (BACTERIA)(3A)(DISPLAY OR LIBRAR?)
L6 3 S (SUBLANCIN?) AND (SUBTILIN?) AND L2
L7 3 S L2 AND SUBLANCIN?
L8 228 S L2 AND (CHIMERIC? OR CHIMERA?)
L9 152 S L8 AND (ANTIGEN? OR ANTIBOD? OR TARGET?)
L10 61 S L9 AND (PANNING OR SCREEN?)
L11 0 S L10 AND (BACTERIA?)(2A)(DISPLAY?)
L12 0 S L10 AND PANNING
L13 7 S L10 AND DISPLAY?
L14 0 S L13 AND BACILLUS?
L15 0 S L10 AND BACILLUS?

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 10:23:43 ON 26 OCT 2004
L16 11882 S (HANSEN, J? OR HANSEN J?)/AU,IN
L17 4 S L16 AND MARYLAND?
L18 182 S L16 AND (LIBRAR? OR CHIMERA OR CHIMERIC OR LANTIBOD? OR BACTE
L19 74 S L18 AND (CHIMER?)
L20 33 DUP REM L19 (41 DUPLICATES REMOVED)
L21 0 S L20 AND (SURFACE)(2A)(DISPLAY?)

FILE 'STNGUIDE' ENTERED AT 10:28:51 ON 26 OCT 2004

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 10:30:41 ON 26 OCT 2004

=>

L20 ANSWER 21 OF 33 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 11
AN 1995:863198 CAPLUS
DN 124:3338
TI Role of the leader and structural regions of prelantibiotic peptides as assessed by expressing nisin-**subtilin chimeras** in Bacillus subtilis 168, and characterization of their physical, chemical, and antimicrobial properties
AU Chakicherla, Anu; **Hansen, J. Norman**
CS Dep. Chem. Biochem., Univ. Maryland, College Park, MD, 20742, USA
SO Journal of Biological Chemistry (1995), 270(40), 23533-9
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Bio logy
DT Journal
LA English
AB Biosynthesis of lantibiotics such as nisin and **subtilin** involves post-translational modifications, including dehydration of serines and threonines, formation of thioether cross-linkages, translocation, cleavage of a leader sequence, and release into the medium. We have studied the cellular machinery that performs the modifications by constructing and expressing nisin-**subtilin chimeric** prepeptides in a strain of Bacillus subtilis 168 that possesses all of the cellular machinery for making **subtilin** except for the presubtilin gene. The **chimeras** consisted of a normal **subtilin** leader region (SL), fused to nisin-**subtilin chimeric** structural regions, one of which was SL-Nis1-11-Sub12-32, in which the N-terminal portion of the structural region was derived from nisin, and the C-terminal portion derived from **subtilin**. This **chimera** was accurately and efficiently converted to the corresponding mature lantibiotic, as established by reverse phase high performance liquid chromatog. profiles, proton NMR spectroscopy, mass spectral anal., and biol. activity. A succinylated form of the **chimera** was also produced. Another **chimera** was in the reverse sense, with **subtilin** sequence at the N terminus and nisin sequence at the C terminus of the structural region (SL-Sub1-11-Nis12-34). It was processed into a heterogeneous mixture of products, none of which had the characteristics of a correctly processed polypeptide, but did contain a minor component that was active, with a specific activity that considerably exceeded nisin itself. Thus, processing requires specific recognition between the prelantibiotic peptide and the processing machinery, and in order for the processing to occur correctly, there must be an appropriate combination of the N-terminal part of the leader region and the C-terminal part of the structural region of the prepeptide.